Special Research Report # 453: Identifying Consumer Preferences for Essential Elements of a Flower Product

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BACKGROUND

For the floral industry to be competitive and thrive, it is important to identify consumer preferences for the major flower characteristics, i.e., color, shape, size, fragrance, and quality perception. This is needed to cultivate and increase consumer purchases. Utilizing 'Consumer-Assisted Selection' allows the industry to gain a better understanding of what consumers want and, thus, target consumer demands. In this study, we used psychophysics to determine which aspects of flowers interest various demographic groups and segments of human subjects.

MATERIALS & METHODS

Studies were conducted to examine consumer perceptions towards a floral product and/or flower experience using Mind Genomics®. This methodology examines cognitive perception by presenting online human subjects with various flower elements, which define different aspects of the product. The subjects rate the product as different element combinations are shown on a computer screen. The single elements that have the greatest impact or detraction to consumer perception can be determined.

The first study group had 295 subjects acquired by a Fielding house and had an even distribution between genders and four ethnicities. The majority of these subjects was 40 years old and older, married, lived in a suburban area, experienced flowers "all the time", content with flowers available on the market today, and had previously purchased flowers. The second study group consisted of a University of Florida undergraduate introduction to plants class with 336 students. This group consisted primarily of white, female students between the ages of 18 to 24.

Subjects were exposed to flower based elements derived from six categories related to a flower and/or flower experience. They included: (1) flower color, (2) flower shape, (3) flower fragrance, (4) consumer health and wellness, (5) purchase location, and (6) flower use. Six elements, or word phrases, correlating within each category were generated. This resulted in a total of 36 independent elements. The full phrase description of each element within each category is in Table 1. Participants rated their preferences online within each flower category on a nine point Likert rating scale and an interest value (low interest to high interest) was then mathematically determined (Figure 1). Data were also separated and analyzed based on gender, age group, ethnicity, and living locations (urban, suburban).

Lastly, the data was segmented using K-cluster analysis which represents the portion of respondents that have similar trends of response toward floral product elements. This allowed the subjects to be segmented into categories by interest level.

Figure 1. Student subjects participating in the online study to examine consumer perception towards a floral product and/or flower experience.

RESULTS

The data from both subject groups were assembled into a topline interest value arrangement table (Table 1). The elements were sorted from highest interest value to lowest interest value per group.   The major findings are summarized below.

- For both groups, the top element as judged by the highest overall interest value was from the flower fragrance category. The Fielding house group had the largest interest value (7) for the element "The subtle fragrance of a traditional rose". Whereas, the student group had the highest interest value (8) for the element "Smells fresh with a hint of citrus".
- The next highest interest value for both groups was from the flower color category. Each group agreed on the color category "Explosive, vibrant red petals" as a high interest value and "Pastel flower colors" as the lowest interest value.
- Both groups shared the same bottom 3 elements with negative interest values. An element from the category of purchase location with the words "Lowe's garden center" was the third lowest value, the second lowest value interest value was for the element "Best way to say sorry", and the absolute lowest interest value was for an element from the flower fragrance category "This flower does not make fragrance at all".

- Both groups showed the most interest in flower fragrance and color and lowest interest in terms of where they purchased flowers. The exception was the student group who had a high ranking for "Picked fresh from a local garden".
- Both groups had the highest interest value for flower "rarity" in the flower shape category.
- Every other category, such as flower shape, fragrance, use, consumer health and wellness and purchase location, contained at least one disagreement as to individual elements with the highest or lowest interest value.
- Separation of male subjects from female subjects in each group illustrated that the Fielding house female subjects were generally more interested in flowers than the rest.
- The young males from the student subjects showed the highest interest value for flower color and human wellness elements while showing substantial disinterest in elements for categories like flower shape and use.
- Gender, age (18-24) and ethnic (White, Black, Latino, Asian) comparisons also showed flower fragrant elements as a top interest value and "No fragrance" at or near the bottom of the interest value the majority of the time.
- Based on comparisons of similar interest, the subjects were categorized into 3 segments; (1) olfaction segment were subjects that had high interest values for flower fragrance; (2) visual segment were subjects that had high interest values for flower color; (3) other segment which included high interest values from the health and wellness category for the Fielding house subjects and purchase location for the student subjects.

Table 1. A topline interest value alignment for two subject categories listed from highest to lowest interest value. The constant is a calculated value that depicts the percentage of subjects that would respond favorably (7-9) if no elements were present, i.e., a study baseline. The interest value is a percentage that is added to the constant for a percentage of subjects, which would be interested or disinterested in the respective element.

Fielding House		Undergraduate Plant Class	
Constant	57	Constant	53
The subtle fragrance of a traditional rose **	7	Smells fresh with a hint of citrus **	8
Explosive, vibrant red petals **	5	Explosive, vibrant red petals **	7
Rarity is everything **	5	A mixture of many brightly colored flowers	6
Happy is a bright flower **	4	Smells sweet as honeysuckle	6
Beauty is found in symmetrically shaped flowers	4	Picked fresh from a home garden **	5
Flowers that could be used to...decorate a celebration **	4	Festive flowers mean fun **	5

A mixture of many brightly colored flowers	3	Cheery yellow flower petals	4
Smells sweet as honeysuckle	3	Healthy flowers for a healthy home	4
The perfect gift for a friend	3	Rarity is everything **	3
The more flowers...the more oxygen	2	Purchased from a local farmers market	3
Delicate sprays of small clustered flowers	2	A great way to say...happy birthday **	3
Every flower shape imaginable...I like diversity	2	The more flowers...the more oxygen	2
A great way to say...happy birthday	2	Happy is a bright flower	2
Smells fresh with a hint of citrus	2	Every flower shape imaginable...I like diversity	2
Cheery yellow flower petals	2	An extremely large flower	2
Chosen with pride by a local grower **	2	Brilliant white petals	2
Looks good enough to eat	2	Blue petals	1
Picked fresh from a home garden	2	The perfect gift for a lover	1
The perfect gift for a lover	1	Beauty is found in symmetrically shaped flowers	1
Flowers in the office for better productivity	1	A great way to say...thinking of you	1
Cover me with the smell of lilies	1	Chosen with pride by a local grower	1
An extremely large flower *	1	Looks good enough to eat	0
Healthy flowers for a healthy home	0	Cover me with the smell of lilies	0
Blue petals	0	Pastel flower colors *	0
A great way to say...thinking of you	0	The subtle fragrance of a traditional rose	0
Festive flowers mean fun	-1	Smells spicy with accents of lavender	0
Convenient at local Home Depot garden center	-1	Flowers that could be used to...decorate a celebration	-1
Brilliant white petals	-1	Flowers in the office for better productivity	-2
Bring a garden to me *	-1	The perfect gift for a friend	-3
Purchased from a local farmers market	-1	Bring a garden to me *	-4
Pastel flower colors *	-2	Delicate sprays of small clustered flowers *	-4
Available from a florist	-2	Convenient at your local Home Depot garden center	-5
Smells spicy with accents of lavender	-2	Available from a florist	-6
Convenient at local Lowe's garden center *	-2	Convenient at local Lowe's garden center *	-7

| Best way to say...sorry * | -5 | Best way to say...sorry | -9 |
| This flower does not make fragrance at all * | -10 | This flower does not make fragrance at all * | -13 |

** Indicates overall top element for each of the six flower categories (color, shape, health and wellness, fragrance, location, use).
* Indicates the lowest element for each flower category.

CONCLUSIONS

These studies have not only shown some interesting trends in commonalities in what consumers prefer in floral products, but also shown many differences in consumer preferences. For example, both the Fielding house and student subjects even when separated by age, gender and ethnicity, all had the highest interest values for elements from the flower fragrance category. This indicates that floral fragrance is a highly important aspect of flowers in respect to human satisfaction and consumer preference. A "vibrant red" flower color and flower "rarity" also had high interest values from both subject groups.

Three main consumer segments were identified from this study. Two segments from the total population were interested in specific, biological aspects of flowers, i.e., fragrance and color. In addition, a single consumer segment was highly interested in flower aspects associated with human health or flower production means. Focusing on what the consumer experiences, the segment distinctions indicate that olfaction, vision, and cognitive ideals are very important to flower consumers as they make purchasing decisions. Clearly, however, individual consumers will value one of these aspects more than others.

INDUSTRY IMPACT

Understanding characteristics that the consumer values highly, e.g., fragrance, in a floral product and delivering this floral product to the consumer may result in the elevated sales and an increased perceived experience for the consumer. Utilizing 'Consumer-Assisted Selection' allows the industry to gain a better understanding of what consumer's desire and to effectively target consumer demands and, thus, increase consumer purchases.

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